REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1, 4, 7, 10, 13 and 16 are currently being amended.

This amendment changes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-24 are now pending in this application.

Claim Rejections under 35 U.S.C. § 102(e)

Claims 1-24 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,062,294 ("Rogard"). In response, Applicants traverse the rejection for at least the reasons set forth below.

Applicants rely on M.P.E.P. § 2131, entitled "Anticipation – Application of 35 U.S.C. § 102(a), (b) and (e)" which states, "a claim is anticipated only if each and every element set forth in the claim is found, either expressly or inherently described, in a single prior art reference."

Applicants respectfully submit that Rogard does not describe each and every element of the claims.

Independent claim 1, as amended, is directed to a "radio cell station apparatus to which a plurality of personal stations can establish space division multiple access" comprising in addition to other elements "a transmitting and receiving unit for transmitting to and receiving from each of the personal stations a signal including a reference signal, which is a signal train consisting of a plurality of bits, and used for a synchronization process of a reception signal from each of the personal stations; a reference signal defining unit for defining one or more reference signals optimized for each multiplexed connection number of

the personal stations establishing said space division multiple access to said radio cell station apparatus" and "a reference signal allocation unit for: switching the reference signals that have been allocated to the personal stations establishing space division multiple access respectively prior to a change in the number of multiplexed connections to reference signals for maintaining communication quality even after the number of multiplexed connections is changed, and allocating the switched reference signals to said plurality of personal stations respectively, when the change in the number of multiplexed connections is detected during communication in said multiplexed connection number detection unit." (emphasis added). Independent claims 4, 7, 10, 13 and 16 recite similar limitations.

For the aid of the Examiner, Applicants direct the Examiner to Figs. 2 and 3 of the application as filed. The claimed reference signal allocation unit is configured to switch the allocated reference signal to a reference signal suitable for the changed number of multiplexed connections.

In contrast, Rogard does not disclose, teach or suggest each and every element recited in independent claims 1, 4, 7, 10, 13 and 16.

The Final Office Action states that the limitations related to the "one or more reference signals" (allegedly recited in the preamble) would not be given any patentable weight. Further, the Advisory action mailed on December 7, 2010, asserts that Rogard teaches "polling downlink with repects to the uplink transfer period associated with the forward polling period, hence the ability to switch at the base station the reference signals in order to maintain quality of service communication."

Applicants respectfully disagree.

As a preliminary matter, Rogard mentions the term "reference signal" but this reference signal as used in Rogard is different than that of the reference signal in the present claims. For example, Col. 5, lines 40-55 state, in part, that "reference signal is constructed that has one or more properties that the uplink signal is known to have, for example, a constant modulus or a particular modulation format. Either the known signal or the constructed reference signal is used to form an error signal, and uplink smart antenna strategy

determining determines the uplink weighting parameters that optimize some criterion based on the error." In contrast, the claimed reference signal is "used for a synchronization process of a reception signal from each of the personal stations" as claimed. Further, unlike the reference signal in Rogard, the claimed reference signal is "optimized for each multiplexed connection number of the personal stations establishing said space division multiple access to said radio cell station apparatus" as claimed.

Further, Rogard fails to disclose, teach or suggest a reference signal allocation unit as claimed. Instead, Rogard discloses a downlink smart antenna processing strategy defined by a set of downlink weighting parameters that includes temporal processing parameters for signals to be transmitted by each of the antenna elements (Rogard et al. col. 6 lines 26-31). In Rogard, the downlink weighting parameters are changed according to an uplink data signal from remote units. Consequently, the downlink parameters recited in Rogard are changed in response to spatial positions of the remote units and have no relation with a change of the number of multiplexed connections of the remote units. Further, Rogard is silent on the concept of switching reference signals. Thus, Rogard fails to disclose, teach or suggest "switching the reference signals that have been allocated to the personal stations establishing space division multiple access respectively prior to a change in the number of multiplexed connections to reference signals for maintaining communication quality even after the number of multiplexed connections is changed, and allocating the switched reference signals to said plurality of personal stations respectively, when the change in the number of multiplexed connections is detected during communication in said multiplexed connection number detection unit" as claimed.

The Final Office Action alleges that Rogard teaches a base station with various mechanisms to determine a downlink smart antenna processing strategy defined in this case by downlink weighting parameters, hence, information as to multiplexed connections of devices establishing communication has to be known by the base station. *See* Rogard Abstract, Col. 6 lines 34-55. The Final Office Action asserts that the downlink weighting parameters in Rogard correspond to "a number of multiplexed connections of the personal stations establishing the space division multiple access to the radio cell station apparatus" recited in claim 1. Furthermore, the Final Office Action asserts that the acknowledge signal

recited in Fig. 3A-3E of Rogard corresponds to the claimed "reference signal" recited in claim 1.

Assuming ***arguendo*** that the Examiner's arguments are adequate, Rogard should switch the acknowledge signals when the change in the downlink parameters is detected. Instead, Rogard discloses that the acknowledge signal includes some training data and some identification information to distinguish signals from its own associated user terminals from signals from user terminals of the other base station. *See* Rogard, col. 19 lines 29-42. Rogard is silent concerning switching the acknowledge signals when the change in the downlink parameters is detected. Furthermore, with reference to col. 6 lines 4-55 of Rogard, Rogard teaches that a downlink smart antenna processing strategy is defined by the downlink weighting parameters determined from the uplink weighting parameters. However, Rogard neither discloses nor suggests switching the acknowledge signals when the change in the downlink parameters is detected.

M.P.E.P. § 2131 states that "[t]he identical invention must be shown in as complete detail as is contained in the...claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *See In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). Here, Rogard fails to disclose each and every limitation in as complete detail as is contained in independent claims 1, 4, 7, 10, 13 and 16.

Accordingly, Applicants respectfully request that the rejection be withdrawn and independent claims 1, 4, 7, 10, 13 and 16 be allowed. Further, claims 2, 3, 5, 6, 8, 9, 11, 12, 14, 15 and 17-24 depend from one of claims 1, 4, 7, 10, 13 or 16 and should be allowed for at least the reasons set forth above without regard to further patentable limitations contained therein.

If this rejection of the claims is maintained, the examiner is respectfully requested to point out where the above-mentioned features are disclosed in Rogard. ***Specifically, the Examiner is requested to identify any passages that the Examiner deems correspond to***

switching an allocated reference signal to a reference signal suitable for the changed number of multiplexed connections.

Conclusion

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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